

## THE DEFENSE SUPPORT PROGRAM (DSP)

1. **NARRATIVE.** The DSP provides real-time, near world-wide reporting of missile launches and nuclear detonations. It is the key warning element of the MSSCC and our primary tool for validating nuclear test ban agreements. The continued availability, credibility, and accuracy of DSP data are of vital interest to ABSCM.

2. **BACKGROUND.** Items impacting DSP data are:

a. **Major Upgrades.** The system is now undergoing major upgrades:

(1) **Satellites.** Two successive improvements have begun. The first is the Sensor Evolutionary Development (SED) upgrade (applicable to satellites 7, 8, and 1A through 1B) which will provide increased infrared detection coverage and resolution. The second is the Survivability Improvement Upgrade (Phase IIA - applicable to satellites 1A through 1B) which will provide satellite-to-satellite cross-linking, mission message redundancy, improved on-orbit station keeping.

b1

(2) **Ground Data System.** To support the new SED sensor, Space Division is replacing the hardware and software units required at the ground stations. We expect all sites to be SED capable b1

(3) **Ground Communications Network (GCN).** To replace the aging Data Distribution Center, and to provide redundant communication paths to the users, Space Division is developing a new GCN. We anticipate an initial operational capability in b1

b. **Satellite Launch Vehicles.** The DSP satellites are presently launched on Titan IIIC boosters; the SED and Phase IIA satellites are being developed for launch by either the Titan 34D or the Space Transportation System (STS).

c. **Mobile Ground Terminals (MGTs).** Space Division is procuring six MGTs to enhance data survivability through all phases of a nuclear war. Though DoD has funded for an IOC b1, we expect delivery schedules of the MGTs and associated communications terminals b1

3. **DISCUSSION.** We expressed concern during the recent Program Assessment Review cycle that performing these major upgrades in a near simultaneous time-frame presents risk to system performance and complicates problem isolation/

operation. We also expressed concern that there will be a lack of launch vehicles for GPS after the planned Titan IIIC launch in February, 1981. Plans are needed which insure a launch-on-demand capability for ADCOM, in case of satellite failure. For the SGT, we are concerned about its ability to communicate with the users in a nuclear environment, and to physically survive a threat ranging from sabotage to nuclear attack.

4. CONCLUSIONS AND/OR RECOMMENDATIONS. Recommend CINCPAC discuss these concerns with the GPS System Program Director, Colonel Ed Barry.

ACTION OFFICER: Major Norman M. Naccari, USAF, JSDW, J201

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AUTHENTICATION: ORIGINAL SIGNED

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